

WHAT IS CLAIMED IS:

1. A chimeric mouse/human monoclonal antibody comprising human immunoglobulin constant domains and immunoglobulin variable domains of murine antibody.

2. The chimeric mouse/human monoclonal antibody of claim 1, wherein said human immunoglobulin constant domains are constant domains of human IgG heavy chain and human kappa light chain.

3. The chimeric mouse/human monoclonal antibody of claim 2, wherein said constant domain of human IgG heavy chain is human IgG2 heavy chain constant domain or human IgG4 heavy chain constant domain.

4. The chimeric mouse/human monoclonal antibody of claim 1, wherein chimeric light chain of said antibody comprises said human immunoglobulin constant domain and said variable domain of murine antibody having the amino acid sequence of SEQ ID No. 16.

5. The chimeric mouse/human monoclonal antibody of claim 4, wherein said chimeric light chain comprises DNA of SEQ ID No. 15.

6. The chimeric mouse/human monoclonal antibody of claim 1, wherein chimeric heavy chain of said antibody comprises a human immunoglobulin constant domain and a variable domain of murine antibody having amino acid sequence of SEQ ID NO. 18.

7. The chimeric mouse/human monoclonal antibody of claim 6, wherein said chimeric heavy chain comprises DNA of SEQ ID NO 17.

8. The chimeric mouse/human monoclonal antibody of claim 1, wherein said antibody is chimeric mAb6B5 antibody (ch-mAb6B5).

9. The chimeric mouse/human monoclonal antibody of claim 8, wherein said chimeric mAb6B5 antibody comprises a chimeric light chain having amino acid sequence of SEQ ID No. 16; and a chimeric heavy chain having amino acid sequence of SEQ ID No 18.

10. The chimeric mouse/human monoclonal antibody of claim 9, wherein said chimeric light chain is encoded by DNA having nucleotide sequence of SEQ ID No. 15 and said chimeric heavy chain is encoded by DNA having nucleotide sequence of SEQ ID No. 17.

11. A method of treating arylcyclohexylamines drug abuse, comprising: administering a pharmaceutically effective amount of said chimeric mouse/human monoclonal antibody of claim 1 to an individual, wherein said administration of said chimeric antibody reverses and/or reduces the adverse effects of arylcyclohexylamines drug abuse.

12. The method of claim 11, wherein said arylcyclohexylamines is selected from the group consisting of phencyclidine (PCP), 1-[1-(2-thienyl) cyclohexyl] piperidine (TCP) and N-ethyl-1-phenylcyclohexylamine (PCE) or other structurally similar, psychoactive analogs.

13. The method of claim 11, wherein the said mouse/human monoclonal antibody is chimeric mAb6B5 antibody.

14. A pharmaceutical composition, comprising the chimeric mouse/human monoclonal antibody of claim 1 and a pharmaceutically acceptable carrier.

15. An expression vector, wherein said expression vector comprises DNA encoding human immunoglobulin light chain constant domain and immunoglobulin variable domain of murine antibody.

5 16. The expression vector of claim 15, wherein said human immunoglobulin light chain constant domain in said expression vector is constant domain of human kappa light chain.

10 17. The expression vector of claim 16, wherein said DNA sequences comprises SEQ ID NO. 15.

18. The expression vector of claim 17, wherein said expression vector expresses chimeric light chain having amino acid sequence of SEQ ID NO. 16.

15 19. An expression vector, wherein said expression vector comprises DNA encoding human immunoglobulin heavy chain constant domain and immunoglobulin variable domain of murine antibody.

20 20. The expression vector of claim 19, wherein said human immunoglobulin heavy chain constant domain in said expression vector is human IgG2 heavy chain constant domain or human IgG4 heavy chain constant domain.

21. The expression vector of claim 19, wherein said DNA sequences comprise SEQ ID NO. 17.

25 22. The expression vector of claim 21, wherein said expression vector expresses chimeric heavy chain having amino acid sequence of SEQ ID NO. 18.

30 23. A host cell line comprising a chimeric light chain expressing vector, wherein said expression vector comprises DNA encoding human immunoglobulin light

chain constant domain and variable domain of murine antibody, and a chimeric heavy chain expressing vector, wherein said expression vector comprises DNA encoding human immunoglobulin heavy chain constant domain and variable domain of murine antibody.

5 24. The host cell line of claim 23, wherein said host cell line is a mammalian cell line or a plant cell line.

10 25. The host cell line of claim 23, wherein said human immunoglobulin light chain constant domain is constant domain of human kappa light chain.

10 26. The host cell line of claim 23, wherein said human immunoglobulin heavy chain constant domain is constant domain of human IgG2 heavy chain or human IgG4 heavy chain.

15 27. The host cell line of claim 23, wherein said chimeric light chain expressing vector comprises DNA of SEQ ID No. 15.

20 28. The host cell line of claim 23, wherein said chimeric heavy chain expressing vector comprises DNA of SEQ ID No. 17.

20 29. The host cell line of claim 23, wherein said cell line produces a recombinant chimeric mouse/human monoclonal antibody.

25 30. The host cell line of claim 29, wherein said recombinant antibody comprises chimeric light chain having amino acid sequence of SEQ ID No. 16 and a chimeric heavy chain having amino acid sequence of SEQ ID No. 18.

30 31. The host cell line of claim 30, wherein said recombinant antibody is chimeric mAb6B5 antibody.

32. A method of producing the recombinant chimeric mouse/human monoclonal antibody, comprising the steps of:

amplifying the cDNAs of variable domains of murine monoclonal antibody;

constructing chimeric light and heavy chain expression vectors comprising

5 said amplified cDNAs and DNA encoding constant domains of human immunoglobulin;

co-transfecting the said expression vectors into a cell; and

culturing the cell under conditions effective for expression of said recombinant chimeric monoclonal antibody.

10 33. The method of claim 32, wherein the said co-transfection is performed in a mammalian cell line or plant cell line.

34. The method of claim 32, wherein the said constant domains of human immunoglobulin are IgG2 heavy chain or IgG4 heavy chain and kappa light chain.

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35. The method of claim 32, wherein the said recombinant chimeric mouse/human monoclonal antibody is chimeric mAb6B5 antibody.